

On page 37, line 5, after "alanine", insert --, as shown in Seq. ID No. 44--, line 9, after "isoleucine", insert --, as shown in Seq. ID No. 45--, line 13, after "glycine", insert --, as shown in Seq. ID No. 46--.

IN THE CLAIMS

1. (Twice amended) The isolated and purified bacterial reverse transcriptase (RT) of claim 13, which RT [has] contains a sequence of amino acid residues as follows: Tyr-Xaa-Asp-Asp, wherein Xaa is alanine or cysteine, as shown in Seq. ID No. [4, residues 168-171] <sup>58</sup> ~~43~~.

2. (Twice amended) The bacterial RT of claim 1 which [has] contains a second sequence of amino acid residues as follows: Ser-Xaa-Xaa<sub>1</sub>-Xaa<sub>2</sub>, wherein [serine, x which] Xaa is a hydrophobic residue selected from the group consisting of valine, phenylalanine, leucine and isoleucine, Xaa<sub>1</sub> is a polar residue selected from the group consisting of threonine, asparagine, lysine and serine and Xaa<sub>2</sub> is a hydrophobic residue selected from the group consisting of tryptophan, phenylalanine and alanine, as shown in Seq. ID No. [4, residues 96-99] <sup>51</sup> ~~44~~.

3. (Twice amended) The bacterial RT of claim 2 which [has] contains a third sequence of amino acid residues as follows: Asn-Xaa-Xaa<sub>1</sub>, wherein Xaa is a hydrophobic residue

selected from the group consisting of alanine, leucine and phenylalanine and Xaa, ~~is a hydrophobic residue selected from the group consisting of leucine, valine and isoleucine.~~

4. (Twice amended) The bacterial RT of claim 3 which [has] contains a fourth sequence of amino acid residues as follows: Xaa-Val-Thr-Gly, wherein Xaa is a polar residue selected from the group consisting of arginine, glutamic acid, lysine, valine and glutamine, as shown in Seq. ID No. [4, residues 225-228]

5. (Twice amended) The bacterial RT of claim 1 which [has] contains [the common] subdomains 1 through 7 shown as the boxed regions in Figure 14.

7. (Twice amended) The bacterial RT of claim 6 which [has] contains the 61 [conserved] amino acid residues as shown by black dots in Figure 14, wherein h is a hydrophobic residue and p is a small polar residue.

8. (Twice amended) An isolated and purified bacterial RT which comprises an amino acid sequence selected from the sequences shown in Figure 14[, which sequences are shown in Seq. ID Nos. 30-36].